Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Vaderahalli layout.

Est Cost: 150.00 Lakhs

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Vaderahalli								
	Mn Rd Connecting Rd		1	174.00	1.10	0.90	172.26		
	Anganvadi Rd		1	114.00	1.00	0.90	102.60		
	Cross Rd		1	200.00	1.10	0.90	198.00		
	Seventh Day Church Surround								
	Rd A		2	56.00	1.10	0.90	110.88		
	Rd B		2	157.00	1.10	0.90	310.86		
	Rd C		2	28.00	1.10	0.90	55.44		
	Rd D		2	28.00	1.10	0.90	55.44		
	Rain Water Harvesting pits		7	0.31		1.80	3.91		
	Culvert		7	7.00	1.40	0.90	61.74		
							1071.13	**216.50**	**231898.78**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	7	0.31		0.40	**0.87**	**1901**	**1,650.07**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	7	0.31		0.40	**0.87**	**1901**	**1,650.07**
	Data rate	2651.00							
	c) Coarse sand.	Cum	7	0.31		0.30	**0.65**	**2651**	**1,725.80**
	Data rate	2651.00							
	d) Fine Sand	Cum	7	0.31		0.20	**0.43**	**2651**	**1,150.53**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	7	0.31		0.30	**0.65**	**1901**	**1,237.55**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							
	Deduct 12% GST	1298.68							
	Total	10822.32							
		Rmt							
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		7	1.80			12.60		
							12.60	**10822.32**	**136361.23**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	7	0.31			**2.17**	**71.03**	**154.14**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Vaderahalli								
	Mn Rd Connecting Rd		1	174.00	1.10	0.15	28.71		
	Anganvadi Rd		1	114.00	0.90	0.15	15.39		
	Cross Rd		1	200.00	1.10	0.15	33.00		
	Seventh Day Church Surround								
	Rd A		2	56.00	1.10	0.15	18.48		
	Rd B		2	157.00	1.10	0.15	51.81		
	Rd C		2	28.00	1.10	0.15	9.24		
	Rd D		2	28.00	1.10	0.15	9.24		
	Culvert		7	7.00	1.40	0.15	10.29		
							176.16	**5349.82**	**942424.29**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Total	6870.10							
	CC Drain Raft	Cum							
	Vaderahalli								
	Mn Rd Connecting Rd		1	174.00	0.90	0.15	23.49		
	Anganvadi Rd		1	114.00	0.75	0.15	12.83		
	Cross Rd		1	200.00	0.90	0.15	27.00		
	Seventh Day Church Surround								
	Rd A		2	56.00	0.90	0.15	15.12		
	Rd B		2	157.00	0.90	0.15	42.39		
	Rd C		2	28.00	0.90	0.15	7.56		
	Rd D		2	28.00	0.90	0.15	7.56		
	CC Drain Wall								
	Vaderahalli								
	Mn Rd Connecting Rd		2	174.00	0.15	0.65	33.93		
	Anganvadi Rd		2	114.00	0.15	0.65	22.23		
	Cross Rd		2	200.00	0.15	0.65	39.00		
	Seventh Day Church Surround								
	Rd A		4	56.00	0.15	0.65	21.84		
	Rd B		4	157.00	0.15	0.65	61.23		
	Rd C		4	28.00	0.15	0.65	10.92		
	Rd D		4	28.00	0.15	0.65	10.92		
							336.02		
	Culvert Raft		7	7.00	1.20	0.20	11.76		
	Culvert Wall		14	7.00	0.23	0.60	13.52		
							25.28		
							361.30	**6870.10**	**2482160.26**
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	336.02	60.00		20160.90		
	Consider 90kg/Cum for Drain	**Tn**	1	25.28	90.00		2275.56		
							22436.46		
							22.44	**70279.99**	**1576834.18**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Vaderahalli								
	Mn Rd Connecting Rd		1	174.00	0.90		156.60		
	Anganvadi Rd		1	114.00	0.75		85.50		
	Cross Rd		1	200.00	0.90		180.00		
	Seventh Day Church Surround								
	Rd A		2	56.00	0.90		100.80		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Rd B		2	157.00	0.90		282.60		
	Rd C		2	28.00	0.90		50.40		
	Rd D		2	28.00	0.90		50.40		
							906.30	**2337.00**	**2118023.10**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	**5418.00**							
	Culverts	**Sqm**	7	7.00	1.20		58.80		
							58.80	**5418.00**	**318578.40**
10	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143) 10km lead = (1.28x2x10)								
	Basic rate	41.00							
	Area Weightage 3%	1.23							
	Loading and Unloding & Lead	25.60							
	Total	**67.83**							
		Cum							
	Vaderahalli								
	Anganvadi Rd		1	114.00	3.00	0.30	102.60		
	Cross Rd		1	24.00	3.00	0.30	21.60		
	Mn Rd Connecting Rd		1	140.00	5.00	0.30	210.00		
	Seventh Day Church Surround								
	Rd A		1	56.00	5.00	0.30	84.00		
	Rd B		1	157.00	5.00	0.30	235.50		
	Rd C		1	28.00	5.00	0.25	35.00		
	Rd D		1	28.00	5.00	0.25	35.00		
	Cross Rd		1	215.00	5.00	0.25	268.75		
							992.45	**67.83**	**67,317.88**
11	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH / Chapter 3 (I No-19.64,P No-147)								
	Basic rate	6.00							
	Area Weightage 3%	0.18							
	Total	**6.18**							
		Sqm							
	Vaderahalli								
	Anganvadi Rd		1	114.00	3.00		342.00		
	Cross Rd		1	24.00	3.00		72.00		
	Mn Rd Connecting Rd		1	140.00	5.00		700.00		
	Seventh Day Church Surround								
	Rd A		1	56.00	5.00		280.00		
	Rd B		1	157.00	5.00		785.00		
	Rd C		1	28.00	5.00		140.00		
	Rd D		1	28.00	5.00		140.00		
	Cross Rd		1	215.00	5.00		1075.00		
							3534.00	**6.18**	**21,840.12**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
12	KSRRB M600-1.Providing and **Constructing dry lean cement concrete** mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. Clause 601of MORTH V Revision and IS 456 Table-5. with OPC at 150 kg/cum and coarse aggregate .86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor. (I No-22.1,P No-174)								
	Basic rate	3585.00							
	Area Weightage 3%	107.55							
	Total	**3692.55**							
		Cum							
	Vaderahalli								
	Anganvadi Rd		1	114.00	3.00	0.15	51.30		
	Cross Rd		1	24.00	3.00	0.15	10.80		
	Mn Rd Connecting Rd		1	140.00	5.00	0.15	105.00		
	Seventh Day Church Surround								
	Rd A		1	56.00	5.00	0.15	42.00		
	Rd B		1	157.00	5.00	0.15	117.75		
	Rd C		1	28.00	5.00	0.15	21.00		
	Rd D		1	28.00	5.00	0.15	21.00		
	Cross Rd		1	215.00	5.00	0.15	161.25		
							530.10	**3692.55**	**1957420.76**
13	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30** over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to(P.No-176,I No-22.6.1)								
	Basic rate	4916.00							
	Area Weightage 3%	147.48							
	Total	**5063.48**							
		Cum							
	Vaderahalli								
	Anganvadi Rd		1	114.00	3.00	0.15	51.30		
	Cross Rd		1	24.00	3.00	0.15	10.80		
	Mn Rd Connecting Rd		1	140.00	5.00	0.15	105.00		
	Seventh Day Church Surround								
	Rd A		1	56.00	5.00	0.15	42.00		
	Rd B		1	157.00	5.00	0.15	117.75		
	Rd C		1	28.00	5.00	0.15	21.00		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Rd D		1	28.00	5.00	0.15	21.00		
	Cross Rd		1	215.00	5.00	0.15	161.25		
							530.10	**5063.48**	**2684150.75**
14	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 3%	12.87							
	Total	**441.87**							
		Sqm							
	Vaderahalli								
	Anganvadi Rd		2	114.00	0.10		22.80		
	Cross Rd		2	24.00	0.10		4.80		
	Mn Rd Connecting Rd		2	140.00	0.10		28.00		
	Seventh Day Church Surround								
	Rd A		2	56.00	0.10		11.20		
	Rd B		2	157.00	0.10		31.40		
	Rd C		2	28.00	0.10		5.60		
	Rd D		2	28.00	0.10		5.60		
	Cross Rd		2	215.00	0.10		43.00		
							152.40	**441.87**	**67,340.99**
								Total Construction Cost	**12611918.90**
								Towards GST 12%	**1513430.27**
								Tender premiun 5%	**630595.95**
								DPR and PMC Charges 2%	**244000.00**
								Sub Total	**14999945.11**
								Utility Shifting,Miscellaneous and Rounding off	**54.89**
								GRAND TOTAL	**15000000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-201 9 and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Vaderahalli Rainbow layout.

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
									Est Cost: 100.00 Lakhs
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Vaderahalli								
	Mathkuti Lt								
	Rd A		1	140.00	1.00	1.00	140.00		
	Rd B		1	165.00	1.00	1.00	165.00		
	Rd C		1	235.00	1.00	0.90	211.50		
	Rd D		1	35.00	1.00	0.90	31.50		
	Mn Rd, Opp Mangala Provision Store Desilt		1	50.00	0.45	0.50	11.25		
	Rain Water Harvesting pits		6	0.31		1.80	3.35		
	Culvert		5	6.50	1.40	0.90	40.95		
							603.55	**216.50**	**130668.14**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	6	0.31		0.40	**0.74**	**1901**	**1,414.34**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	6	0.31		0.40	**0.74**	**1901**	**1,414.34**
	Data rate	2651.00							
	c) Coarse sand.	Cum	6	0.31		0.30	**0.56**	**2651**	**1,479.26**
	Data rate	2651.00							
	d) Fine Sand	Cum	6	0.31		0.20	**0.37**	**2651**	**986.17**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	6	0.31		0.30	**0.56**	**1901**	**1,060.76**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							
	Deduct 12% GST	1298.68							
	Total	10822.32							
		Rmt							
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		6	1.80			10.80		
							10.80	**10822.32**	**116881.06**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	6	0.31			**1.86**	**71.03**	**132.12**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Vaderahalli								
	Mathkuti Lt								
	Rd A		1	140.00	0.90	0.15	18.90		
	Rd B		1	165.00	0.90	0.15	22.28		
	Rd C		1	235.00	0.90	0.15	31.73		
	Rd D		1	35.00	0.90	0.15	4.73		
	Culvert		5	6.50	1.40	0.15	6.83		
							84.45	**5349.82**	**451792.30**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							
	Total	**6870.10**							
	CC Drain Raft	**Cum**							
	Vaderahalli								

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Mathkuti Lt								
	Rd A		1	140.00	0.75	0.15	15.75		
	Rd B		1	165.00	0.75	0.15	18.56		
	Rd C		1	235.00	0.75	0.15	26.44		
	Rd D		1	35.00	0.75	0.15	3.94		
	CC Drain Wall								
	Vaderahalli								
	Mathkuti Lt								
	Rd A		2	140.00	0.15	0.65	27.30		
	Rd B		2	165.00	0.15	0.65	32.18		
	Rd C		2	235.00	0.15	0.65	45.83		
	Rd D		2	35.00	0.15	0.65	6.83		
							176.81		
	Culvert Raft		5	6.50	1.20	0.20	7.80		
	Culvert Wall		10	6.50	0.23	0.60	8.97		
							16.77		
							193.58	**6870.10**	**1329931.13**
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	176.81	60.00		10608.75		
	Consider 90kg/Cum for Drain	**Tn**	1	16.77	90.00		1509.30		
							12118.05		
							12.12	**70279.99**	**851656.43**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Vaderahalli								
	Rd A		1	140.00	0.75		105.00		
	Rd B		1	165.00	0.75		123.75		
	Rd C		1	235.00	0.75		176.25		
	Rd D		1	35.00	0.75		26.25		
	Mn Rd, Opp Mangala Provision Store Top Slabs		1	50.00	0.75		37.50		
							468.75	**2337.00**	**1095468.75**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	**5418.00**							
	Culverts	**Sqm**	5	6.50	1.20		39.00		
							39.00	**5418.00**	**211302.00**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Basic rate	3585.00							
	Area Weightage 3%	107.55							
	Total	**3692.55**							
		Cum							
	Vaderahalli								
	Alexandar house Rd		1	25.00	4.00	0.15	15.00		
	2nd Mn Nethaji Lt		1	134.00	5.00	0.15	100.50		
	Mathkuti Lt								
	Rd A		1	140.00	3.50	0.15	73.50		
	Rd B		1	170.00	3.60	0.15	91.80		
	Rd C		1	240.00	3.60	0.15	129.60		
	Rd D		1	40.00	3.60	0.15	21.60		
	Parvathamma house Rd		1	28.00	3.80	0.15	15.96		
	Cross Rd		1	35.00	4.00	0.15	21.00		
							468.96	**3692.55**	**1731658.25**
13	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30** over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to(P.No-176,I No-22.6.1)								
	Basic rate	4916.00							
	Area Weightage 3%	147.48							
	Total	**5063.48**							
		Cum							
	Vaderahalli								
	Alexandar house Rd		1	25.00	4.00	0.15	15.00		
	2nd Mn Nethaji Lt		1	134.00	5.00	0.15	100.50		
	Mathkuti Lt								
	Rd A		1	140.00	3.50	0.15	73.50		
	Rd B		1	170.00	3.60	0.15	91.80		
	Rd C		1	240.00	3.60	0.15	129.60		
	Rd D		1	40.00	3.60	0.15	21.60		
	Parvathamma house Rd		1	28.00	3.80	0.15	15.96		
	Cross Rd		1	35.00	4.00	0.15	21.00		
							468.96	**5063.48**	**2374569.58**
14	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 3%	12.87							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Total	441.87							
		Sqm							
	Vaderahalli								
	Alexandar house Rd		2	25.00	0.10		5.00		
	2nd Mn Nethaji Lt		2	134.00	0.10		26.80		
	Mathkuti Lt								
	Rd A		2	140.00	0.10		28.00		
	Rd B		2	170.00	0.10		34.00		
	Rd C		2	240.00	0.10		48.00		
	Rd D		2	40.00	0.10		8.00		
	Parvathamma house Rd		2	28.00	0.10		5.60		
	Cross Rd		2	35.00	0.10		7.00		
							162.40	441.87	71,759.69
								Total Construction Cost	**8455114.58**
								Towards GST 12%	**1014613.75**
								Tender premiun 5%	**422755.73**
								DPR and PMC Charges 2%	**107000.00**
								Sub Total	**9999484.06**
								Utility Shifting,Miscellaneous and Rounding off	**515.94**
								GRAND TOTAL	**10000000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-201 9 and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Muneshwara layout.

Est Cost: 250.00 Lakhs

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Muneshwara Lt								
	Mn Rd		1	180.00	1.10	1.20	237.60		
	6th cross		2	130.00	1.10	1.00	286.00		
	Muneshwaranagara Mn rd, LHS		1	380.00	1.10	1.00	418.00		
	Cross Rd		1	54.00	1.10	1.00	59.40		
	Culvert		11	8.00	1.40	1.00	123.20		
	Cross Rd Culvert		3	25.00	1.80	1.40	189.00		
	Rain Water Harvesting pits		7	0.31		1.80	3.91		
							1317.11	**216.50**	**285153.45**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	7	0.31		0.40	**0.87**	**1901**	**1,650.07**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	7	0.31		0.40	**0.87**	**1901**	**1,650.07**
	Data rate	2651.00							
	c) Coarse sand.	Cum	7	0.31		0.30	**0.65**	**2651**	**1,725.80**
	Data rate	2651.00							
	d) Fine Sand	Cum	7	0.31		0.20	**0.43**	**2651**	**1,150.53**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	7	0.31		0.30	**0.65**	**1901**	**1,237.55**
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Deduct 12% GST	1298.68							
	Total	10822.32							
		Rmt							
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		7	1.80			12.60		
							12.60	**10822.32**	**136361.23**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	7	0.31			**2.17**	**71.03**	**154.14**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Muneshwara Lt								
	Mn Rd		1	180.00	1.10	0.15	29.70		
	6th cross		2	130.00	1.10	0.15	42.90		
	Muneshwaranagara Mn rd, LHS		1	380.00	1.10	0.15	62.70		
	Cross Rd		1	54.00	1.10	0.15	8.91		
	Culvert		11	8.00	1.40	0.15	18.48		
	Cross Rd Culvert		3	25.00	1.80	0.15	20.25		
							182.94	**5349.82**	**978696.07**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							
	Total	**6870.10**							
	CC Drain Raft	**Cum**							
	Muneshwara Lt								
	Mn Rd		1	180.00	0.90	0.15	24.30		
	6th cross		2	130.00	0.90	0.15	35.10		
	Muneshwaranagara Mn rd, LHS		1	380.00	0.90	0.15	51.30		
	Cross Rd		1	54.00	0.90	0.15	7.29		
	CC Drain Wall								
	Muneshwara Lt								
	Mn Rd		2	180.00	0.15	0.90	48.60		
	6th cross		4	130.00	0.15	0.65	50.70		
	Muneshwaranagara Mn rd, LHS		2	380.00	0.15	0.60	68.40		
	Cross Rd		2	54.00	0.15	0.60	9.72		
							295.41		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Culvert Raft		11	8.00	1.20	0.20	21.12		
	Culvert Wall		22	8.00	0.23	0.60	24.29		
	Cross Rd Culvert		3	25.00	1.50	0.25	28.13		
	Cross Rd Culvert		6	25.00	0.30	0.80	36.00		
							109.53		
							404.94	**6870.10**	**2781998.90**
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	295.41	60.00		17724.60		
	Consider 90kg/Cum for Drain	**Tn**	1	109.53	90.00		9857.97		
							27582.57		
							27.58	**70279.99**	**1938502.74**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Muneshwara Lt								
	Mn Rd		1	180.00	0.90		162.00		
	6th cross		2	130.00	0.90		234.00		
	Muneshwaranagara Mn rd, LHS		1	380.00	0.90		342.00		
	Cross Rd		1	54.00	0.90		48.60		
							786.60	**2337.00**	**1838284.20**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	**5418.00**							
	Culverts	**Sqm**	11	8.00	1.20		105.60		
	Cross Rd Culvert		3	25.00	1.50		112.50		
							218.10	**5418.00**	**1181665.80**
10	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143) 10km lead = (1.28x2x10)								
	Basic rate	41.00							
	Area Weightage 3%	1.23							
	Loading and Unloding & Lead	25.60							
	Total	**67.83**							
		Cum							
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00	0.45	2362.50		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00	0.35	131.25		
	Rd-2		1	75.00	5.00	0.35	131.25		
	Rd-3		1	75.00	5.00	0.35	131.25		
	Rd-4		1	75.00	5.00	0.35	131.25		
	Cross Rd-1		1	95.00	5.00	0.35	166.25		
	Cross Rd-2		1	95.00	5.00	0.35	166.25		
	Cross Rd-3		1	95.00	5.00	0.35	166.25		
							3386.25	**67.83**	**229689.34**
11	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH / Chapter 3 (I No-19.64,P No-147)								
	Basic rate	6.00							
	Area Weightage 3%	0.18							
	Total	**6.18**							
		Sqm							
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00		5250.00		
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00		375.00		
	Rd-2		1	75.00	5.00		375.00		
	Rd-3		1	75.00	5.00		375.00		
	Rd-4		1	75.00	5.00		375.00		
	Cross Rd-1		1	95.00	5.00		475.00		
	Cross Rd-2		1	95.00	5.00		475.00		
	Cross Rd-3		1	95.00	5.00		475.00		
							8175.00	**6.18**	**50,521.50**
12	**Construction of granular sub-base** Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	Basic rate	1882.00							
	Area Weightage 3%	56.46							
	Total	**1938.46**							
		Cum							
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00	0.15	787.50		
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00	0.15	56.25		
	Rd-2		1	75.00	5.00	0.15	56.25		
	Rd-3		1	75.00	5.00	0.15	56.25		
	Rd-4		1	75.00	5.00	0.15	56.25		
	Cross Rd-1		1	95.00	5.00	0.15	71.25		
	Cross Rd-2		1	95.00	5.00	0.15	71.25		
	Cross Rd-3		1	95.00	5.00	0.15	71.25		
							1226.25	**1938.46**	**2377036.58**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
13	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Basic rate	1888.00							
	Area Weightage 3%	56.64							
	Total	**1944.64**							
		Cum							
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00	0.225	1181.25		
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00	0.225	84.38		
	Rd-2		1	75.00	5.00	0.225	84.38		
	Rd-3		1	75.00	5.00	0.225	84.38		
	Rd-4		1	75.00	5.00	0.225	84.38		
	Cross Rd-1		1	95.00	5.00	0.225	106.88		
	Cross Rd-2		1	95.00	5.00	0.225	106.88		
	Cross Rd-3		1	95.00	5.00	0.225	106.88		
							1839.38	**1944.64**	**3576922.20**
14	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	Basic rate	32.00							
	Area Weightage 3%	0.96							
	Total	**32.96**							
		Sqm							
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00		5250.00		
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00		375.00		
	Rd-2		1	75.00	5.00		375.00		
	Rd-3		1	75.00	5.00		375.00		
	Rd-4		1	75.00	5.00		375.00		
	Cross Rd-1		1	95.00	5.00		475.00		
	Cross Rd-2		1	95.00	5.00		475.00		
	Cross Rd-3		1	95.00	5.00		475.00		
							8175.00	**32.96**	**269448.00**
15	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Basic rate	7008.00							
	Area Weightage 3%	210.24							
	Total	**7218.24**							
		Cum							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00	0.05	262.50		
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00	0.05	18.75		
	Rd-2		1	75.00	5.00	0.05	18.75		
	Rd-3		1	75.00	5.00	0.05	18.75		
	Rd-4		1	75.00	5.00	0.05	18.75		
							337.50	**7218.24**	**2436156.00**
16	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Basic rate	12.00							
	Area Weightage 3%	0.36							
	Total	**12.36**							
		Sqm							
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00		5250.00		
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00		375.00		
	Rd-2		1	75.00	5.00		375.00		
	Rd-3		1	75.00	5.00		375.00		
	Rd-4		1	75.00	5.00		375.00		
							6750.00	**12.36**	**83,430.00**
17	Providing and laying **bituminous concrete 40mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	Basic rate	8207.00							
	Area Weightage 3%	246.21							
	Total	**8453.21**							
		Cum							
	Muneshwara Lt								
	Mn Rd		1	750.00	7.00	0.04	210.00		
	Anil Kumar House Adjacent Rd-1		1	75.00	5.00	0.03	11.25		
	Rd-2		1	75.00	5.00	0.03	11.25		
	Rd-3		1	75.00	5.00	0.03	11.25		
	Rd-4		1	75.00	5.00	0.03	11.25		
	Cross Rd-1		1	95.00	5.00	0.04	19.00		
	Cross Rd-2		1	95.00	5.00	0.04	19.00		
	Cross Rd-3		1	95.00	5.00	0.04	19.00		
							312.00	**8453.21**	**2637401.52**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
18	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 3%	12.87							
	Total	**441.87**							
		Sqm							
	Muneshwara Lt								
	Mn Rd		2.5	750.00	0.15		281.25		
	Anil Kumar House Adjacent Rd-1		2	75.00	0.10		15.00		
	Rd-2		2	75.00	0.10		15.00		
	Rd-3		2	75.00	0.10		15.00		
	Rd-4		2	75.00	0.10		15.00		
	Cross Rd-1		2	95.00	0.10		19.00		
	Cross Rd-2		2	95.00	0.10		19.00		
	Cross Rd-3		2	95.00	0.10		19.00		
							398.25	**441.87**	**175974.73**
								Total Construction Cost	**20984810.42**
								Towards GST 12%	**2518177.25**
								Tender premiun 5%	**1049240.52**
								DPR and PMC Charges 2%	**447000.00**
								Sub Total	**24999228.19**
								Utility Shifting,Miscellaneous and Rounding off	**771.81**
								GRAND TOTAL	**25000000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-2019 and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Medi agrahara village.

Est Cost: 100.00 Lakhs

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Medi agrahara								
	Mn road to Tank		1	160.00	1.10	1.10	193.60		
	Sheshavalla house Rd, LHS		1	74.00	1.00	0.90	66.60		
	RHS		1	39.00	1.00	0.90	35.10		
	Shanmugananda house Rd		2	240.00	1.10	0.90	475.20		
	Rain Water Harvesting pits		5	0.31		1.80	2.79		
	Culvert		6	6.00	1.40	0.90	45.36		
							818.65	**216.50**	**177237.73**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	5	0.31		0.40	**0.62**	**1901**	**1,178.62**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	5	0.31		0.40	**0.62**	**1901**	**1,178.62**
	Data rate	2651.00							
	c) Coarse sand.	Cum	5	0.31		0.30	**0.47**	**2651**	**1,232.72**
	Data rate	2651.00							
	d) Fine Sand	Cum	5	0.31		0.20	**0.31**	**2651**	**821.81**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	5	0.31		0.30	**0.47**	**1901**	**883.97**
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							
	Deduct 12% GST	1298.68							
	Total	10822.32							
		Rmt							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		5	1.80			9.00		
							9.00	**10822.32**	**97,400.88**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	5	0.31			**1.55**	**71.03**	**110.10**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Medi agrahara								
	Mn road to Tank		1	160.00	1.10	0.15	26.40		
	Sheshavalla house Rd, LHS		1	74.00	1.00	0.15	11.10		
	RHS		1	39.00	1.00	0.15	5.85		
	Shanmugananda house Rd		2	240.00	1.10	0.15	79.20		
	Culvert		6	6.00	1.40	0.15	7.56		
							130.11	**5349.82**	**696065.08**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							
	Total	**6870.10**							
	CC Drain Raft	**Cum**							
	Medi agrahara								
	Mn road to Tank		1	160.00	0.90	0.15	21.60		
	Sheshavalla house Rd, LHS		1	74.00	0.75	0.15	8.33		
	RHS		1	39.00	0.75	0.15	4.39		
	Shanmugananda house Rd		2	240.00	0.90	0.15	64.80		
	CC Drain Wall								
	Medi agrahara								
	Mn road to Tank		2	160.00	0.15	0.90	43.20		
	Sheshavalla house Rd, LHS		2	74.00	0.15	0.60	13.32		
	RHS		2	39.00	0.15	0.60	7.02		
	Shanmugananda house Rd		4	240.00	0.15	0.65	93.60		
							256.25		
	Culvert Raft		6	6.00	1.20	0.20	8.64		
	Culvert Wall		12	6.00	0.23	0.60	9.94		
							18.58		
							274.83	**6870.10**	**1888099.28**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	256.25	60.00		15375.15		
	Consider 90kg/Cum for Drain	**Tn**	1	18.58	90.00		1671.84		
							17046.99		
							17.05	**70279.99**	**1198062.29**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Medi agrahara								
	Mn road to Tank		1	160.00	0.90		144.00		
	Sheshavalla house Rd, LHS		1	74.00	0.75		55.50		
	RHS		1	39.00	0.75		29.25		
	Shanmugananda house Rd		2	240.00	0.90		432.00		
							660.75	**2337.00**	**1544172.75**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	**5418.00**							
	Culverts	**Sqm**	6	6.00	1.20		43.20		
							43.20	**5418.00**	**234057.60**
10	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143) 10km lead = (1.28x2x10)								
	Basic rate	41.00							
	Area Weightage 3%	1.23							
	Loading and Unloding & Lead	25.60							
	Total	**67.83**							
		Cum							
	Medi agrahara								
	G. Lakkappa Layout								
	3rd main Rd		1	96.00	4.70	0.25	112.80		
	4th main Rd		1	130.00	4.70	0.25	152.75		
	5th main Rd		1	52.00	4.70	0.25	61.10		
	Shruthi house Rd		1	45.00	4.00	0.25	45.00		
	Muni Narasaiah house Rd		1	60.00	4.50	0.25	67.50		
	Cross Rd		1	35.00	4.00	0.25	35.00		
							474.15	**67.83**	**32,161.59**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
11	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH / Chapter 3 (I No-19.64,P No-147)								
	Basic rate	6.00							
	Area Weightage 3%	0.18							
	Total	**6.18**							
		Sqm							
	Medi agrahara								
	G. Lakkappa Layout								
	3rd main Rd		1	96.00	4.70		451.20		
	4th main Rd		1	130.00	4.70		611.00		
	5th main Rd		1	52.00	4.70		244.40		
	Shruthi house Rd		1	45.00	4.00		180.00		
	Muni Narasaiah house Rd		1	60.00	4.50		270.00		
	Cross Rd		1	35.00	4.00		140.00		
							1896.60	**6.18**	**11,720.99**
12	KSRRB M600-1.Providing and **Constructing dry lean cement concrete** mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. Clause 601of MORTH V Revision and IS 456 Table-5. with OPC at 150 kg/cum and coarse aggregate .86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor. (I No-22.1,P No-174)								
	Basic rate	3585.00							
	Area Weightage 3%	107.55							
	Total	**3692.55**							
		Cum							
	Medi agrahara								
	G. Lakkappa Layout								
	3rd main Rd		1	96.00	4.70	0.15	67.68		
	4th main Rd		1	130.00	4.70	0.15	91.65		
	5th main Rd		1	52.00	4.70	0.15	36.66		
	Shruthi house Rd		1	45.00	4.00	0.15	27.00		
	Muni Narasaiah house Rd		1	60.00	4.50	0.15	40.50		
	Cross Rd		1	35.00	4.00	0.15	21.00		
							284.49	**3692.55**	**1050493.55**
13	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30** over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to(P.No-176,I No-22.6.1)								

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Basic rate	4916.00							
	Area Weightage 3%	147.48							
	Total	**5063.48**							
		Cum							
	Medi agrahara								
	G. Lakkappa Layout								
	3rd main Rd		1	96.00	4.70	0.15	67.68		
	4th main Rd		1	130.00	4.70	0.15	91.65		
	5th main Rd		1	52.00	4.70	0.15	36.66		
	Shruthi house Rd		1	45.00	4.00	0.15	27.00		
	Muni Narasaiah house Rd		1	60.00	4.50	0.15	40.50		
	Cross Rd		1	35.00	4.00	0.15	21.00		
							284.49	**5063.48**	**1440509.43**
14	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 3%	12.87							
	Total	**441.87**							
		Sqm							
	Medi agrahara								
	G. Lakkappa Layout								
	3rd main Rd		2	96.00	0.10		19.20		
	4th main Rd		2	130.00	0.10		26.00		
	5th main Rd		2	52.00	0.10		10.40		
	Shruthi house Rd		2	45.00	0.10		9.00		
	Muni Narasaiah house Rd		2	60.00	0.10		12.00		
	Cross Rd		2	35.00	0.10		7.00		
							83.60	**441.87**	**36,940.33**
								Total Construction Cost	**8412327.34**
								Towards GST 12%	**1009479.28**
								Tender premiun 5%	**420616.37**
								DPR and PMC Charges 2%	**157000.00**
								Sub Total	**9999422.99**
								Utility Shifting,Miscellaneous and Rounding off	**577.01**
								GRAND TOTAL	**10000000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-2019 and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Medi agrahara Nirashrithara layout.

Est Cost: 100.00 Lakhs

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Medi agrahara Nirashrithara layout								
	Crematorium Rd Entrance		1	60.00	1.10	0.90	59.40		
	Layout Mn Rd		1	190.00	1.10	0.90	188.10		
	Bhagyamma House Rd		1	190.00	1.10	0.90	188.10		
	Rain Water Harvesting pits		4	0.31		1.80	2.23		
	Culvert		8	7.00	1.40	0.90	70.56		
							508.39	**216.50**	**110066.87**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	4	0.31		0.40	**0.50**	**1901**	**942.90**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	4	0.31		0.40	**0.50**	**1901**	**942.90**
	Data rate	2651.00							
	c) Coarse sand.	Cum	4	0.31		0.30	**0.37**	**2651**	**986.17**
	Data rate	2651.00							
	d) Fine Sand	Cum	4	0.31		0.20	**0.25**	**2651**	**657.45**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	4	0.31		0.30	**0.37**	**1901**	**707.17**
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							
	Deduct 12% GST	1298.68							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Total	10822.32							
		Rmt							
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		4	1.80			7.20		
							7.20	**10822.32**	**77,920.70**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	4	0.31			**1.24**	**71.03**	**88.08**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Medi agrahara Nirashrithara layout								
	Crematorium Rd Entrance		1	60.00	1.10	0.15	9.90		
	Layout Mn Rd		1	190.00	1.10	0.15	31.35		
	Bhagyamma House Rd		1	190.00	1.10	0.15	31.35		
	Culvert		8	7.00	1.40	0.15	11.76		
							84.36	**5349.82**	**451310.82**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							
	Total	**6870.10**							
	CC Drain Raft	**Cum**							
	Medi agrahara Nirashrithara layout								
	Crematorium Rd Entrance		1	60.00	0.90	0.15	8.10		
	Layout Mn Rd		1	190.00	0.90	0.15	25.65		
	Bhagyamma House Rd		1	190.00	0.90	0.15	25.65		
	CC Drain Wall								
	Medi agrahara Nirashrithara layout								
	Crematorium Rd Entrance		2	60.00	0.15	0.60	10.80		
	Layout Mn Rd		2	190.00	0.15	0.65	37.05		
	Bhagyamma House Rd		2	190.00	0.15	0.65	37.05		
							144.30		
	Culvert Raft		8	7.00	1.20	0.20	13.44		
	Culvert Wall		16	7.00	0.23	0.60	15.46		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
							28.90		
							173.20	6870.10	1189873.84
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	144.30	60.00		8658.00		
	Consider 90kg/Cum for Drain	**Tn**	1	28.90	90.00		2600.64		
							11258.64		
							11.26	**70279.99**	**791257.11**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Medi agrahara **Nirashrithara layout**								
	Crematorium Rd Entrance		1	60.00	0.90		54.00		
	Layout Mn Rd		1	190.00	0.90		171.00		
	Bhagyamma House Rd		1	190.00	0.90		171.00		
							396.00	**2337.00**	**925452.00**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	**5418.00**							
	Culverts	**Sqm**	8	7.00	1.20		67.20		
							67.20	**5418.00**	**364089.60**
10	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143) 10km lead = (1.28x2x10)								
	Basic rate	41.00							
	Area Weightage 3%	1.23							
	Loading and Unloding & Lead	25.60							
	Total	**67.83**							
		Cum							
	Medi agrahara **Nirashrithara layout**								
	Layout Mn Rd		1	200.00	4.80	0.25	240.00		
	Bhagyamma House Rd		1	220.00	5.00	0.25	275.00		
	Qasim House Rd		1	250.00	5.00	0.25	312.50		
							827.50	**67.83**	**56,129.33**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
11	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH / Chapter 3 (I No-19.64,P No-147)								
	Basic rate	6.00							
	Area Weightage 3%	0.18							
	Total	**6.18**							
		Sqm							
	Medi agrahara Nirashrithara layout								
	Layout Mn Rd		1	200.00	4.80		960.00		
	Bhagyamma House Rd		1	220.00	5.00		1100.00		
	Qasim House Rd		1	250.00	5.00		1250.00		
							3310.00	**6.18**	**20,455.80**
12	KSRRB M600-1.Providing and **Constructing dry lean cement concrete** mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. Clause 601of MORTH V Revision and IS 456 Table-5. with OPC at 150 kg/cum and coarse aggregate .86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor. (I No-22.1,P No-174)								
	Basic rate	3585.00							
	Area Weightage 3%	107.55							
	Total	**3692.55**							
		Cum							
	Medi agrahara Nirashrithara layout								
	Layout Mn Rd		1	200.00	4.80	0.15	144.00		
	Bhagyamma House Rd		1	220.00	5.00	0.15	165.00		
	Qasim House Rd		1	250.00	5.00	0.15	187.50		
							496.50	**3692.55**	**1833351.08**
13	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30** over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to(P.No-176,I No-22.6.1)								
	Basic rate	4916.00							
	Area Weightage 3%	147.48							
	Total	**5063.48**							
		Cum							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Medi agrahara Nirashrithara layout								
	Layout Mn Rd		1	200.00	4.80	0.15	144.00		
	Bhagyamma House Rd		1	220.00	5.00	0.15	165.00		
	Qasim House Rd		1	250.00	5.00	0.15	187.50		
							496.50	**5063.48**	**2514017.82**
14	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 3%	12.87							
	Total	**441.87**							
		Sqm							
	Medi agrahara Nirashrithara layout								
	Layout Mn Rd		2	200.00	0.10		40.00		
	Bhagyamma House Rd		2	220.00	0.10		44.00		
	Qasim House Rd		2	250.00	0.10		50.00		
							134.00	**441.87**	**59,210.58**
								Total Construction Cost	**8397460.22**
								Towards GST 12%	**1007695.23**
								Tender premiun 5%	**419873.01**
								DPR and PMC Charges 2%	**174000.00**
								Sub Total	**9999028.46**
								Utility Shifting,Miscellaneous and Rounding off	**971.54**
								GRAND TOTAL	**10000000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-201 9and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Syampura village.

									Est Cost: 150.00 Lakhs
Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Shamarajapura village								
	8th cross rd		2	205.00	1.10	0.90	405.90		
	Cross Rd		1	36.00	1.10	0.90	35.64		
	Rain Water Harvesting pits		5	0.31		1.80	2.79		
	Culvert		1	7.00	1.40	0.90	8.82		
							453.15	**216.50**	**98,106.98**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	5	0.31		0.40	**0.62**	**1901**	**1,178.62**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	5	0.31		0.40	**0.62**	**1901**	**1,178.62**
	Data rate	2651.00							
	c) Coarse sand.	Cum	5	0.31		0.30	**0.47**	**2651**	**1,232.72**
	Data rate	2651.00							
	d) Fine Sand	Cum	5	0.31		0.20	**0.31**	**2651**	**821.81**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	5	0.31		0.30	**0.47**	**1901**	**883.97**
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							
	Deduct 12% GST	1298.68							
	Total	10822.32							
		Rmt							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		5	1.80			9.00		
							9.00	**10822.32**	**97,400.88**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	5	0.31			**1.55**	**71.03**	**110.10**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Shamarajapura village								
	8th cross rd		2	205.00	1.10	0.15	67.65		
	Cross Rd		1	36.00	1.10	0.15	5.94		
	Culvert		1	7.00	1.40	0.15	1.47		
							75.06	**5349.82**	**401557.49**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							
	Total	**6870.10**							
	CC Drain Raft	**Cum**							
	Shamarajapura village								
	8th cross rd		2	205.00	0.90	0.15	55.35		
	Cross Rd		1	36.00	0.90	0.15	4.86		
	CC Drain Wall								
	Shamarajapura village								
	8th cross rd		4	205.00	0.15	0.60	73.80		
	Cross Rd		2	36.00	0.15	0.60	6.48		
							140.49		
	Culvert Raft		1	7.00	1.20	0.20	1.68		
	Culvert Wall		2	7.00	0.23	0.60	1.93		
							3.61		
							144.10	**6870.10**	**989995.15**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	140.49	60.00		8429.40		
	Consider 90kg/Cum for Drain	**Tn**	1	3.61	90.00		325.08		
							8754.48		
							8.75	**70279.99**	**615264.77**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Shamarajapura village								
	8th cross rd		2	205.00	0.90		369.00		
	Cross Rd		1	36.00	0.90		32.40		
							401.40	**2337.00**	**938071.80**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	**5418.00**							
	Culverts	**Sqm**	1	7.00	1.20		8.40		
							8.40	**5418.00**	**45,511.20**
10	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143) 10km lead = (1.28x2x10)								
	Basic rate	41.00							
	Area Weightage 3%	1.23							
	Loading and Unloding & Lead	25.60							
	Total	**67.83**							
		Cum							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50	0.25	281.88		
	10th cross rd		1	205.00	5.50	0.25	281.88		
	Cross Rd		1	56.00	5.50	0.25	77.00		
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50	0.25	347.88		
	2nd main		1	253.00	5.00	0.25	316.25		
	3rd main		1	205.00	5.00	0.25	256.25		
	Cross Rd		1	34.00	5.00	0.25	42.50		
	Cross Rd		1	34.00	5.00	0.25	42.50		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
							1646.13	**67.83**	**111656.66**
11	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH / Chapter 3 (I No-19.64,P No-147)								
	Basic rate	6.00							
	Area Weightage 3%	0.18							
	Total	**6.18**							
		Sqm							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50		1127.50		
	10th cross rd		1	205.00	5.50		1127.50		
	Cross Rd		1	56.00	5.50		308.00		
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50		1391.50		
	2nd main		1	253.00	5.00		1265.00		
	3rd main		1	205.00	5.00		1025.00		
	Cross Rd		1	34.00	5.00		170.00		
	Cross Rd		1	34.00	5.00		170.00		
							6584.50	**6.18**	**40,692.21**
12	**Construction of granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	Basic rate	1882.00							
	Area Weightage 3%	56.46							
	Total	**1938.46**							
		Cum							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50	0.15	169.13		
	10th cross rd		1	205.00	5.50	0.15	169.13		
	Cross Rd		1	56.00	5.50	0.15	46.20		
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50	0.15	208.73		
	2nd main		1	253.00	5.00	0.15	189.75		
	3rd main		1	205.00	5.00	0.15	153.75		
	Cross Rd		1	34.00	5.00	0.15	25.50		
	Cross Rd		1	34.00	5.00	0.15	25.50		
							987.68	**1938.46**	**1914568.48**
13	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Basic rate	1888.00							
	Area Weightage 3%	56.64							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Total	**1944.64**							
		Cum							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50	0.225	253.69		
	10th cross rd		1	205.00	5.50	0.225	253.69		
	Cross Rd		1	56.00	5.50	0.225	69.30		
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50	0.225	313.09		
	2nd main		1	253.00	5.00	0.225	284.63		
	3rd main		1	205.00	5.00	0.225	230.63		
	Cross Rd		1	34.00	5.00	0.225	38.25		
	Cross Rd		1	34.00	5.00	0.225	38.25		
							1481.51	**1944.64**	**2881008.47**
14	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	Basic rate	32.00							
	Area Weightage 3%	0.96							
	Total	**32.96**							
		Sqm							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50		1127.50		
	10th cross rd		1	205.00	5.50		1127.50		
	Cross Rd		1	56.00	5.50		308.00		
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50		1391.50		
	2nd main		1	253.00	5.00		1265.00		
	3rd main		1	205.00	5.00		1025.00		
	Cross Rd		1	34.00	5.00		170.00		
	Cross Rd		1	34.00	5.00		170.00		
							6584.50	**32.96**	**217025.12**
15	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Basic rate	7008.00							
	Area Weightage 3%	210.24							
	Total	**7218.24**							
		Cum							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50	0.05	56.38		
	10th cross rd		1	205.00	5.50	0.05	56.38		
	Cross Rd		1	56.00	5.50	0.05	15.40		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50	0.05	69.58		
	2nd main		1	253.00	5.00	0.05	63.25		
	3rd main		1	205.00	5.00	0.05	51.25		
	Cross Rd		1	34.00	5.00	0.05	8.50		
	Cross Rd		1	34.00	5.00	0.05	8.50		
							329.23	**7218.24**	**2376425.06**
16	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Basic rate	12.00							
	Area Weightage 3%	0.36							
	Total	**12.36**							
		Sqm							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50		1127.50		
	10th cross rd		1	205.00	5.50		1127.50		
	Cross Rd		1	56.00	5.50		308.00		
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50		1391.50		
	2nd main		1	253.00	5.00		1265.00		
	3rd main		1	205.00	5.00		1025.00		
	Cross Rd		1	34.00	5.00		170.00		
	Cross Rd		1	34.00	5.00		170.00		
							6584.50	**12.36**	**81,384.42**
17	Providing and laying **bituminous concrete 40mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	Basic rate	8207.00							
	Area Weightage 3%	246.21							
	Total	**8453.21**							
		Cum							
	Shamarajapura village								
	9th cross rd		1	205.00	5.50	0.03	33.83		
	10th cross rd		1	205.00	5.50	0.03	33.83		
	Cross Rd		1	56.00	5.50	0.03	9.24		
	Shamarajapura Venkateshwara Layout								
	1st main		1	253.00	5.50	0.03	41.75		
	2nd main		1	253.00	5.00	0.03	37.95		
	3rd main		1	205.00	5.00	0.03	30.75		

	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Cross Rd		1	34.00	5.00	0.03	5.10		
	Cross Rd		1	34.00	5.00	0.03	5.10		
							197.54	**8453.21**	**1669804.84**
18	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 3%	12.87							
	Total	**441.87**							
		Sqm							
	Shamarajapura village								
	9th cross rd		2	205.00	0.10		41.00		
	10th cross rd		2	210.00	0.10		42.00		
	Cross Rd		2	56.00	0.10		11.20		
	Shamarajapura Venkateshwara Layout								
	1st main		2	253.00	0.10		50.60		
	2nd main		2	253.00	0.10		50.60		
	3rd main		2	205.00	0.10		41.00		
	Cross Rd		2	34.00	0.10		6.80		
	Cross Rd		2	34.00	0.10		6.80		
							250.00	**441.87**	**110467.50**
								Total Construction Cost	**12594346.87**
								Towards GST 12%	**1511321.62**
								Tender premiun 5%	**629717.34**
								DPR and PMC Charges 2%	**264000.00**
								Sub Total	**14999385.84**
								Utility Shifting,Miscellaneous and Rounding off	**614.16**
		GRAND TOTAL							**15000000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-201 9and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Subedarapalya village.

									Est Cost: 65.00 Lakhs
Sl No	**Description of Item**	**Unit**	**No**	**Length**	**Width**	**Depth**	**Quantity**	**Rate**	**Amount**
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Subedarapalya village								
	1st cross rd		2	230.00	1.10	1.00	506.00		
	2nd cross rd		1	230.00	1.10	1.00	253.00		
	Cross road		1	106.00	1.10	1.00	116.60		
	Rain Water Harvesting pits		4	0.31		1.80	2.23		
							877.83	**216.50**	**190050.63**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	4	0.31		0.40	**0.50**	**1901**	**942.90**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	4	0.31		0.40	**0.50**	**1901**	**942.90**
	Data rate	2651.00							
	c) Coarse sand.	Cum	4	0.31		0.30	**0.37**	**2651**	**986.17**
	Data rate	2651.00							
	d) Fine Sand	Cum	4	0.31		0.20	**0.25**	**2651**	**657.45**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	4	0.31		0.30	**0.37**	**1901**	**707.17**
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							
	Deduct 12% GST	1298.68							
	Total	10822.32							
		Rmt							

No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		4	1.80			7.20		
							7.20	**10822.32**	**77,920.70**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	4	0.31			**1.24**	**71.03**	**88.08**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Subedarapalya village								
	1st cross rd		2	230.00	1.10	0.15	75.90		
	2nd cross rd		1	230.00	1.10	0.15	37.95		
	Cross road		1	106.00	1.10	0.15	17.49		
							131.34	**5349.82**	**702645.36**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							
	Total	**6870.10**							
	CC Drain Raft	**Cum**							
	Subedarapalya village								
	1st cross rd		2	230.00	0.90	0.15	62.10		
	2nd cross rd		1	230.00	0.90	0.15	31.05		
	Cross road		1	106.00	0.90	0.15	14.31		
	CC Drain Wall								
	Subedarapalya village								
	1st cross rd		4	230.00	0.15	0.60	82.80		
	2nd cross rd		2	230.00	0.15	0.60	41.40		
	Cross road		2	106.00	0.15	0.60	19.08		
							250.74		
							250.74	**6870.10**	**1722608.87**
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							

	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	250.74	60.00		15044.40		
							15044.40		
							15.04	**70279.99**	**1057320.28**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Subedarapalya village								
	1st cross rd		2	230.00	0.90		414.00		
	2nd cross rd		1	230.00	0.90		207.00		
	Cross road		1	106.00	0.90		95.40		
							716.40	**2337.00**	**1674226.80**
								Total Construction Cost	**5429097.31**
								Towards GST 12%	**651491.68**
								Tender premiun 5%	**271454.87**
								DPR and PMC Charges 2%	**147000.00**
								Sub Total	**6499043.85**
								Utility Shifting,Miscellaneous and Rounding off	**956.15**
								GRAND TOTAL	**6500000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-201 9and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Veerasagara village.

									Est Cost: 100.00 Lakhs
Sl No	**Description of Item**	**Unit**	**No**	**Length**	**Width**	**Depth**	**Quantity**	**Rate**	**Amount**
	Civil Work								
1	KSRRB 300-1. **Earthwork excavation by manual means** for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19.1,P No-141), 10km lead = (1.28x2x10)+57.								
	Basic rate	130.00							
	Area Weightage 3%	3.90							
	Loading and Unloding & Lead	82.60							
	Total	**216.50**							
	CC Drain	**Cum**							
	Veerasagara village								
	Mahesh House Rd		1	150.00	1.10	0.90	148.50		
	Veerasagara mn Rd, RHS		1	300.00	1.40	1.00	420.00		
	Veerasagara mn Rd, LHS		1	160.00	1.40	1.00	224.00		
	Cross Rd		1	100.00	1.10	0.90	99.00		
	Rain Water Harvesting pits		5	0.31		1.80	2.79		
	Culvert		3	7.00	1.40	0.90	26.46		
							920.75	**216.50**	**199342.38**
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications. Data Rate								
	Data rate	1901.00							
	a) 40mm Jelly	Cum	5	0.31		0.40	**0.62**	**1901**	**1,178.62**
	Data rate	1901.00							
	b) 20mm Jelly	Cum	5	0.31		0.40	**0.62**	**1901**	**1,178.62**
	Data rate	2651.00							
	c) Coarse sand.	Cum	5	0.31		0.30	**0.47**	**2651**	**1,232.72**
	Data rate	2651.00							
	d) Fine Sand	Cum	5	0.31		0.20	**0.31**	**2651**	**821.81**
	Data rate	1901.00							
	e) 12.5mm chips	Cum	5	0.31		0.30	**0.47**	**1901**	**883.97**
3	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : **HDPE Grade PE80-PN6.0, 630 mm dia.** (Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR 2017-18, Pg No 121 Item No. 1.17 Code No. K010Q)								
	Basic rate	12121.00							
	Deduct 12% GST	1298.68							

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Total	10822.32							
		Rmt							
	0.63m dia HDPE Perforated Pipe. For 1.8 Mtr depth,		5	1.80			9.00		
							9.00	**10822.32**	**97,400.88**
4	**Providing of Geonets** for Rain Water Harvesting pit on top of the filter media as specified in drawings or as approved by Engineer Incharge. Data Rate								
	Data rate	71.03							
		Sqm	5	0.31			**1.55**	**71.03**	**110.10**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of Mix 1:3:6** with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.2,KPWD SR 2018-19)								
	Basic rate	5194.00							
	Area Weightage 3%	155.82							
	Total	**5349.82**							
	CC Drain	**Cum**							
	Veerasagara village								
	Mahesh House Rd		1	150.00	1.10	0.15	24.75		
	Veerasagara mn Rd, RHS		1	300.00	1.40	0.15	63.00		
	Veerasagara mn Rd, LHS		1	160.00	1.40	0.15	33.60		
	Cross Rd		1	100.00	1.10	0.15	16.50		
	Culvert		3	7.00	1.40	0.15	4.41		
							142.26	**5349.82**	**761065.39**
6	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	Area Weightage 3%	200.10							
	Total	**6870.10**							
	CC Drain Raft	**Cum**							
	Veerasagara village								
	Mahesh House Rd		1	150.00	0.90	0.15	20.25		
	Veerasagara mn Rd, RHS		1	300.00	1.20	0.15	54.00		
	Veerasagara mn Rd, LHS		1	160.00	1.20	0.15	28.80		
	Cross Rd		1	100.00	0.90	0.15	13.50		
	CC Drain Wall								
	Veerasagara village								
	Mahesh House Rd		2	150.00	0.15	0.60	27.00		
	Veerasagara mn Rd, RHS		2	300.00	0.15	0.80	72.00		
	Veerasagara mn Rd, LHS		2	160.00	0.15	0.80	38.40		
	Cross Rd		2	100.00	0.15	0.60	18.00		
							271.95		
	Culvert Raft		3	7.00	1.20	0.20	5.04		
	Culvert Wall		6	7.00	0.23	0.60	5.80		

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
							10.84		
							282.79	6870.10	1942768.10
7	KSRRB M2200-6. **Providing T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	Area Weightage 3%	2046.99							
	Total	**70279.99**							
	Consider 60kg/Cum for Drain	**Tn**	1	271.95	60.00		16317.00		
	Consider 90kg/Cum for Drain	**Tn**	1	10.84	90.00		975.24		
							17292.24		
							17.29	**70279.99**	**1215298.45**
8	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with **10cm thick** and Finishing cutting , including form work, cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Data rate	2337.00							
	CC Drain Top Covering Slab	**Sqm**							
	Veerasagara village								
	Mahesh House Rd		1	150.00	0.90		135.00		
	Veerasagara mn Rd, RHS		1	300.00	1.20		360.00		
	Veerasagara mn Rd, LHS		1	160.00	1.20		192.00		
	Cross Rd		1	100.00	0.90		90.00		
							777.00	**2337.00**	**1815849.00**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	**5418.00**							
	Culverts	**Sqm**	3	7.00	1.20		25.20		
							25.20	**5418.00**	**136533.60**
10	KSRRB M300-14. **Excavation for roadwork** in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143) 10km lead = (1.28x2x10)								
	Basic rate	41.00							
	Area Weightage 3%	1.23							
	Lead	25.60							
	Total	**67.83**							
		Cum							
	Veerasagara village								
	Mahesh House Rd		1	150.00	5.50	0.30	247.50		
	Nagesh House Rd		1	50.00	5.00	0.30	75.00		
	Ganapathi Temple		1	90.00	4.00	0.30	108.00		
			1	34.00	3.50	0.30	35.70		
	A.N. Engineering Works		1	18.00	4.50	0.30	24.30		
							490.50	**67.83**	**33,270.62**

Sl No	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
11	KSRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH / Chapter 3 (I No-19.64,P No-147)								
	Basic rate	6.00							
	Area Weightage 3%	0.18							
	Total	**6.18**							
		Sqm							
	Veerasagara village								
	Mahesh House Rd		1	150.00	5.50		825.00		
	Nagesh House Rd		1	50.00	5.00		250.00		
	Ganapathi Temple		1	90.00	4.00		360.00		
			1	34.00	3.50		119.00		
	A.N. Engineering Works		1	18.00	4.50		81.00		
							1635.00	**6.18**	**10,104.30**
12	KSRRB M600-1.Providing and **Constructing dry lean cement concrete** mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. Clause 601of MORTH V Revision and IS 456 Table-5. with OPC at 150 kg/cum and coarse aggregate .86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor. (I No-22.1,P No-174)								
	Basic rate	3585.00							
	Area Weightage 3%	107.55							
	Total	**3692.55**							
		Cum							
	Veerasagara village								
	Mahesh House Rd		1	150.00	5.50	0.15	123.75		
	Nagesh House Rd		1	50.00	5.00	0.15	37.50		
	Ganapathi Temple		1	90.00	4.00	0.15	54.00		
			1	34.00	3.50	0.15	17.85		
	A.N. Engineering Works		1	18.00	4.50	0.15	12.15		
							245.25	**3692.55**	**905597.89**
13	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30** over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to(P.No-176,I No-22.6.1)								
	Basic rate	4916.00							
	Area Weightage 3%	147.48							

	Description of Item	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Total	5063.48							
		Cum							
	Veerasagara village								
	Mahesh House Rd		1	150.00	5.50	0.15	123.75		
	Nagesh House Rd		1	50.00	5.00	0.15	37.50		
	Ganapathi Temple		1	90.00	4.00	0.15	54.00		
			1	34.00	3.50	0.15	17.85		
	A.N. Engineering Works		1	18.00	4.50	0.15	12.15		
							245.25	5063.48	1241818.47
14	KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 3%	12.87							
	Total	441.87							
		Sqm							
	Veerasagara village								
	Mahesh House Rd		2	150.00	0.10		30.00		
	Nagesh House Rd		2	50.00	0.10		10.00		
	Ganapathi Temple		2	90.00	0.10		18.00		
			2	34.00	0.10		6.80		
	A.N. Engineering Works		2	18.00	0.10		3.60		
							68.40	441.87	30,223.91
								Total Construction Cost	8394678.83
								Towards GST 12%	1007361.46
								Tender premiun 5%	419733.94
								DPR and PMC Charges 2%	178000.00
								Sub Total	9999774.23
								Utility Shifting,Miscellaneous and Rounding off	225.77
								GRAND TOTAL	10000000.00

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-201 9and Data Rates

Assistant Engineer

Asst. Executive Engineer

Executive Engineer
Yelahanka Division
BBMP Bangalore